

Genetic Disease Webquest – Group Worksheet

Group Members: _____
Date: _____

- 1) Learn about DNA technology in the Introduction and Criminology sections of the Marian Koshland Science Museum website.
What kind of biological samples could have been used to collect the DNA from the sick infants for analysis?

How similar is human DNA to other species?

- 2) Go through the DNA Sequence portion of the Koshland website. Pay particular attention to the **Probe the Sequence** activity.
What is the relationship between the size of the probe and the amount of times it occurs in the sequence?

- 3) Now you are going to Blast the DNA sequence from the sick infants the way scientists do – against the whole human genome (3 billion base pairs!!!).

Look at the comparison of the two sequences. When there is a vertical line between the two sequences that means they are identical. How is your sequence (the top sequence) different when compared to the known sequence (the bottom sequence)? What is missing from your sequence that is in the known sequence?

Learn about Inherited Diseases at the Marian Koshland Science Museum.
Give an example of an inherited disease and what kind of mutation causes it.
